

Assignment

Q-1 What are the four fundamental parts of computer ?

Ans-1 Hard Drive – This is as known storage. All your programmes and data are stored on your drive. Fill it too much and things will slow down.

Memory- You can equate a computer's memory to your memory. A computer with plenty of memory is like a person with great memory.

Case- The case is simply the body that everything sits in. Check out your computer case. It's built pretty intelligently for example. If you have a mouse with a round connector (PS2) then the connector is probably green and there is only one green round connection point on the motherboard for it.

Motherboard- You could equate a motherboard to a spinal cord. Not only does everything play into it but this also how everything communicates. Most of the motherboard is hidden from view and is only exposed at the rear of computer.

Classification of Computer :-

Super Computer

Main Frame Computer

Mini Computer

Micro Computer

Super Computer -

Super Computers - Super computers are the most powerful and physically the largest by size. These are systems designed to process huge amounts of data and the fastest super computers can perform over one trillion calculations in seconds. Super computers have thousands of processors. Because of their extraordinary speed, accuracy and processing power. Super Computers are well suited for solving highly complex problems and performing tasks that demand huge amounts of calculations.

Main frame Computer – Main frame computers are very large, often filling an entire room and can process thousands of millions of instructions per second. In a main frame environment, users connect to the main frame through the many terminals wired to the main frame. Main frames are capable of supporting hundreds to thousands of users simultaneously. Some of the functions performed by a main frame include: Flight scheduling, Reservation and ticketing for airlines.

Mini Computers – Mini Computers are much smaller than mainframes. These computers are also less expensive. Sometimes referred to as midrange Servers are midrange computers, they are typically larger, more powerful and more expensive than desktop computers. Midrange computers are usually used by small and medium sized businesses as their servers. Users connect to the server through a network by using desktop computers.

Micro Computers – Micro computers are the most frequently used type of computers. Also known as personal computers. (PC), a micro computer is a small computer system designed to be used by one person at a time.

Evaluation :-

The evolution of digital computing is often divided into generations. Each generation is characterized by dramatic improvements over the previous generation in the technology used to build computers in terms of the internal organization of computer and programming languages.

Five Generation of Computers :-

- 1- First Generation
- 2 – Second Generation
- 3 - Third Generations
- 4 – Fourth Generation
- 5 – Fifth Generation

First Generation: Vacuum Tubes (1940-1956):-

The first computer systems used vacuum tubes for circuitry and magnetic drums for memory. and were

often enormous, taking up entire room first generation computers relied on machine language. the lowest level programming language understood by computers, to perform operations and they could solve one problem at a time the UNIVAC (Universal Automatic Machine) and ENIAC (Electronic numerical computer) computers are examples of first generation computing devices. The UNIVAC was the first commercial computer delivered to a business client, the US census Bureau in 1951

Second Generation : Transistors (1956-1963)

The world would see transistors replace vacuum tubes in second generation of computers. The transistor was invented at Bell Labs in 1947 but did not see widespread use in computers until the late 1950s. The transistor was superior to the vacuum tube allowing computers to become smaller, faster, cheaper, more energy efficient and more reliable than their first generation. A great deal of heat that subjected the computer to damage, it was a vast improvement over the vacuum tube. Second generation computers moved from cryptic binary machine language to symbolic or assembly language

Third Generation: Integrated Circuits (1964-1971)

The development of the integrated circuits was the hallmark of the third generation of computers. Transistors were miniaturized and placed on silicon chips called semiconductors which drastically increased the speed and efficiency of computers. Instead of punched card and printouts, users interacted with third generation computers through keyboard and monitors and interfaced with operating system which allowed the device to run many different applications at one time with a control program that monitored the memory.

Fourth Generation : Microprocessors (1971-Present)

The microprocessors brought the fourth generation of computers as thousands of integrated circuits were built on to a single silicon chip in 1981 IBM introduced its first computer for home use, and in 1984 Apple introduced the Macintosh. All these small computers became more powerful. They could be linked together to form networks, which eventually led to development of the Internet. Fourth generation computers also saw the development of GUIs, the mouse and handheld devices.

Fifth Generation : Artificial Intelligence (Present and Beyond)

Fifth generation computing devices based on artificial intelligence are still in development though there are some applications, such as voice recognition that are being used today. Quantum computing and molecular and nanotechnology will radically change the face of computers in years to come.

Difference Between Volatile & Non Volatile Memory :-

Valatile Memory -

- 1- Valatile memory is the type of memory in which data is lost as it powered off.
- 2- Content of valatile memory is stored tempararies
- 3- It is faster than non valatile memory.
- 4- Ram (Random Access Memory) is an example of valatile memory.
- 5- Valatile memory genarally helpless capacity of storage.

Non- Valatile Memory

Non-valatile memory is the type of memory in which data remains stored even if it is powered off.

Contents of non-valatile memory is stored permissiiontly.

It is slower than valatile memory.

Rom(Read OnlyMemory) is an example of non-valatile memory.

Non-valatile memory genarally has more storage capacity than valatile.

System Software - System software is a type of computers program that is designed to run a computers hardware an application prograrms if we think of a computer system as layered mode the system software is the interface between the hardware and and user applications.The oprating system is the best-known example of the system software The OS managers all thge other programs in a computer.

Important fethers of system Software:-

System software genarally includes the following feathers

1- High Speed - system software must be as efficient as possible to provide effective plateform for higher-level software in the computers system.

Hard to manipulate - It often requires the use of programming language, which is more difficult to use than a more intuitire user interface (OI)

3- Close to the system- It connects directly to the hardware than enables the computers to run.

4- Voritten in a loe-level computers language - system software must be written in a computer language the central processing unit (CPU) and other computer hardware can read.

Application Software - computer software is basically programms and procedures intended to perform

specific tasks on a system. form the lowest level assembly language to the high level language. thre are diffrent type of application software.Computer software system are classified into three major type of namely system software, progarmming software an application software.

Important features of application software -

- 1- Perform more specialized like word processing spreadsheet, photo , email , edition etc.
- 2- It needs more storage space as it us bigger in size.
- 3- easy to design and more interactive for thye user.
- 4- Genarally written in high level language.